

APPLICANT(S): RAVI, Ashoke et al.
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OCT 23 2007

AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows and cancel without prejudice the claims marked as cancelled.

1. (Currently Amended) An apparatus comprising:
a tunable oscillator having a tuned output frequency comprising:
a first oscillation path having a first amplifier and a first oscillation tank with a first free-running frequency;
a second oscillation path having a second amplifier and a second oscillation tank with a second free-running frequency, the second oscillation path being connected in parallel to the first oscillation path;
wherein the first amplifier and the second amplifier are controlled by a single tuning voltage;
and wherein the output frequency is tunable between the first free-running frequency and the second free-running frequency.
2. (Canceled)
3. (Previously Presented) The apparatus of claim 1, wherein the tunable oscillator comprises an adder to add first and second signal components passing through said first and second paths, respectively.
4. (Previously Presented) The apparatus of claim 1, wherein the first amplifier has a gain and the second amplifier has a gain and the gains of the first and second amplifiers are complementary.
5. (Previously Presented) The apparatus of claim 4, wherein a sum of the gains of the first and second amplifiers is substantially constant.

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6. (Previously Presented) The apparatus of claim 5, wherein the sum of the gains of the first and second amplifiers is substantially equal to one.
7. (Previously Presented) The apparatus of claim 1, wherein the first amplifier has a gain and the second amplifier has a gain and the tunable oscillator is able to control the relative values of the gains of the first and second amplifiers.
8. (Cancelled)
9. (Previously Presented) The apparatus of claim 1, wherein the tunable oscillator is able to control first and second voltages applied to said first and second amplifiers, respectively.
10. (Original) The apparatus of claim 3, wherein the first path comprises a first transconductor and wherein the second path comprises a second transconductor.
11. (Currently Amended) A wireless communication device comprising:
 - a dipole antenna to send and receive wireless communication signals; and
 - a tunable oscillator having a tuned output frequency comprising:
 - a first oscillation path having a first amplifier and a first oscillation tank with a first free-running frequency;
 - a second oscillation path having a second amplifier and a second oscillation tank with a second free-running frequency, the second oscillation path being connected in parallel to the first oscillation path;

wherein the first amplifier and the second amplifier are controlled by a single tuning voltage;

and wherein the output frequency is tunable between the first free-running frequency and the second free-running frequency.
12. (Cancelled)

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13. (Previously Presented) The wireless communication device of claim 11, wherein the tunable oscillator comprises an adder to add first and second signal components passing through said first and second paths, respectively.
14. (Previously Presented) The wireless communication device of claim 11, wherein the first amplifier has a gain and the second amplifier has a gain and the gains of the first and second amplifiers are complementary.
15. (Previously Presented) The wireless communication device of claim 14, wherein a sum of the gains of the first and second amplifiers is substantially constant.
16. (Previously Presented) The wireless communication device of claim 15, wherein the sum of the gains of the first and second amplifiers is substantially equal to one.
17. (Previously Presented) The wireless communication device of claim 11, wherein the tunable oscillator is able to control the relative values of the gains of the first and second amplifiers.
18. (Cancelled)
19. (Previously Presented) The wireless communication device of claim 11, wherein the tunable oscillator is able to control first and second voltages applied to said first and second amplifiers, respectively.
20. (Original) The wireless communication device of claim 13, wherein the first path comprises a first transconductor and wherein the second path comprises a second transconductor.
21. (Currently Amended) A method comprising:

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tuning an output frequency of a tunable oscillator to a value between a first free-running frequency of a first oscillation tank and a second free-running frequency of a second oscillation tank,

wherein tuning comprises:

providing a single tuning voltage at a node connected between first and second oscillation paths of said oscillator, wherein the first oscillation path is parallel to the second path, wherein the first oscillation path includes a first amplifier and said first oscillation tank, and wherein the second oscillation path includes a second amplifier and said second oscillation tank;

and controlling the first amplifier and the second amplifier by the tuning voltage.

22. (Canceled)
23. (Previously Presented) The method of claim 21, wherein tuning the frequency comprises adding first and second signal components passing through said first and second paths, respectively.
24. (Previously Presented) The method of claim 21, wherein controlling the first amplifier and the second amplifier comprises producing complementary gains in the first and second amplifiers.
25. (Previously Presented) The method of claim 24, wherein a sum of the gains of the first and second amplifiers is substantially constant.
26. (Previously Presented) The method of claim 25, wherein the sum of said gains is substantially one.
27. (Previously Presented) The method of claim 21, wherein tuning the frequency comprises controlling relative values of the gains of the first and second amplifiers.